

Triton X100

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 10/5/2018 Revision date: 1/8/2019 Supersedes: 10/5/2018 Version: 2.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	: Substance
Substance name	: Triton X100
IUPAC name	: 2-[4-(2,4,4-trimethylpentan-2-yl)phenoxy]ethanol
EC-No.	: 618-344-0
CAS-No.	: 9002-93-1
Product code	: 11084669
Formula	: (C ₂ H ₄ O) _n C ₁₄ H ₂₂ O
Product group	: Raw material

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category	: Industrial use, Professional use, Laboratory use.
Industrial/Professional use spec	: Industrial For professional use only Laboratory use.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Scafell Organics
Molekula Ltd
Lingfield Way
Darlington - England
T +44 (0) 1949 823777 / +44 (0) 7590 545705
info@molekula.com / kbowen@molekula.com - www.molekula.com

1.4. Emergency telephone number

Emergency number : +44 (0) 7590 545705

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Full text of H statements : see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP)	: Warning
Hazard statements (CLP)	: H302 - Harmful if swallowed. H315 - Causes skin irritation. H319 - Causes serious eye irritation.
Precautionary statements (CLP)	: P280 - Wear protective clothing, eye protection, face protection, protective gloves. P301+P312 - IF SWALLOWED: Call a POISON CENTER, a doctor if you feel unwell. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P330 - Rinse mouth. P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%
Triton X100 substance listed as REACH Candidate	(CAS-No.) 9002-93-1 (EC-No.) 618-344-0	100

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). Do not leave affected person unattended. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Allow the victim to rest. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Do not remove clothing if it sticks to the skin.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: Harmful if swallowed. Causes serious eye irritation.
Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing). May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: irritation (itching, redness, blistering).
Symptoms/effects after eye contact	: Causes serious eye damage. redness, itching, tears.
Symptoms/effects after ingestion	: Harmful if swallowed. Ingestion may cause nausea, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Not flammable. Vapours may cause fire/explosion if source of ignition is present.
Explosion hazard	: Not explosive.
Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO ₂).

5.3. Advice for firefighters

Precautionary measures fire	: Evacuate area. Keep container tightly closed and away from heat, sparks and flame. Exposure to fire/heat: seal off low-lying areas. Evacuate unnecessary personnel.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Use extinguishing agent suitable for surrounding fire. Prevent fire fighting water from entering the environment. Do not approach fire except upwind and only with proper skin and respiratory protection (supplied air only).
Protection during firefighting	: Use self-contained breathing apparatus and chemically protective clothing.
Other information	: Warn all persons of toxic hazard.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate from fire, if possible, without unnecessary risk. No flames, no sparks. Eliminate all sources of ignition. Avoid breathing (dust, vapor, mist, gas).

6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Do not get in eyes, on skin, or on clothing. Do not touch or walk on the spilled product. Evacuate unnecessary personnel.
Measures in case of dust release	: Keep upwind. Ventilate the area thoroughly, especially low lying areas (basements, workpits etc).

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing vapours.

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Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Clean contaminated surfaces with an excess of water.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Do not breathe vapours. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Take off immediately all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation. Store contents under inert gas.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Keep container closed when not in use.

Incompatible products : Oxidising agents. Strong bases. Strong acids.

Incompatible materials : Direct sunlight. Heat sources. Sources of ignition.

Storage temperature : 2 - 8 °C

Storage area : Store in refrigerated (0° - 10°C) location.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation. Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Personal protective equipment:

Wear recommended personal protective equipment.

Materials for protective clothing:

Use chemically protective clothing

Hand protection:

The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.11 mm minimum		EN 374

Eye protection:

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure

Type	Use	Characteristics	Standard
Face shield, Safety glasses	Droplet	With side shields	EN 166

Skin and body protection:

Emergency safety showers should be available in the immediate vicinity of any potential exposure

Type	Standard
Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product	EN 14605

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Respiratory protection:

Keep self contained breathing apparatus readily available for emergency use.

Device	Filter type	Condition	Standard
Air-Purifying Respirator (APR), disposable	ABEK	Vapour protection, Protection for Liquid particles	EN 14387

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Clear colourless-pale yellow.
Odour	: No data available.
Odour threshold	: No data available
pH	: 9.7
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: ≈ 6 °C
Freezing point	: No data available
Boiling point	: > 200 °C
Flash point	: ≤ 251 °C Closed cup
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: < 1.33 hPa @ 20.C
Relative vapour density at 20 °C	: No data available
Relative density	: 1.06 - 1.07 @ 20.C
Solubility	: soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: No data available.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Heat sources. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Oxidising agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified

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Acute toxicity (inhalation) : Not classified

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LD50 oral rat 1800 mg/kg

LD50 dermal rabbit > 3000 mg/kg

Skin corrosion/irritation : Causes skin irritation.

pH: 9.7

Additional information : Based on available data, the classification criteria are not met

Serious eye damage/irritation : Causes serious eye irritation.

pH: 9.7

Additional information : Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : Not classified

Additional information : Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-single exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

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EC50 Daphnia 2 18 - 26 mg/l Daphnia magna (Water flea) - 48h

12.2. Persistence and degradability

Triton X100 (9002-93-1)

Persistence and degradability No data available.

12.3. Bioaccumulative potential

Triton X100 (9002-93-1)

Bioaccumulative potential No data available.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Triton X100 (9002-93-1)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Other adverse effects : Very toxic to aquatic life with long lasting effects.

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials : Avoid release to the environment.

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SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Triton X100 is on the REACH Candidate List

Triton X100 is not on the REACH Annex XIV List

Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

Germany

Reference to AwSV

: Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to AwSV; ID No. 8602)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen

: The substance is not listed

SZW-lijst van mutagene stoffen

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling

: The substance is not listed

Denmark

Classification remarks

: Emergency management guidelines for the storage of flammable liquids must be followed

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.